

Addendum

Annual Report to the North Carolina General Assembly

on the

Intensive Family Preservation Services Program

for SFY 2002-2003

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Executive Summary

Results of the on-going retrospective study of the effectiveness of the Intensive Family Preservation Services Program (IFPS) indicate that IFPS is effective, and becoming more effective as compared to prior years, in preventing or delaying out-of-home placement among the target population of high-risk families when compared to the same types of families receiving traditional child welfare services. Results also indicate that the higher the risk evident in families, the larger the difference is between IFPS and traditional services. Further, IFPS appears to be effective at mitigating placement differences between white and non-white populations.

Retrospective Study of the Effectiveness of IFPS

Session Law 1999-237 required the Department of Health and Human Services, Division of Social Services, to develop a revised evaluation model for current and expanded IFPS Programs. The evaluation was to be scientifically rigorous, including the use of treatment control groups, to include a review and description of interventions provided to families as compared to customary services provided to other child welfare families and children, and to collect data regarding the number and type of referrals made for other human services and the utilization of those services. In light of the session law, the Division deemed it appropriate to conduct a study.

The original retrospective study was funded during SFY 2000 and a comprehensive report was produced, titled: *A Retrospective Evaluation of North Carolina's Intensive Family Preservation Services Program*. A more advanced statistical treatment of that study has recently been published [see: Kirk, R.S. & Griffith, D.P. (2004). Intensive family preservation services: Demonstrating placement prevention using event history analysis. *Social Work Research*, 28(1), 5-15.] As noted previously in this report, SFY 2001 was marked by an expansion of IFPS programs as well as changes in the Policies and Procedures to ensure that IFPS services are delivered to the highest risk families. In light of the encouraging findings from the original retrospective study, the state also expanded its evaluation activities to include an on-going retrospective evaluation of North Carolina's families. SFY 2003 marks the third year of this on-going retrospective evaluation.

The research model continues to employ a retrospective examination of the population of families that did and did not receive IFPS. This approach continues to be preferable to other designs because it avoids the problems of using prospective, randomized assignment to

experimental and control groups; a problem experienced by other researchers that has likely contributed to their inability to detect the treatment effects of IFPS (Kirk & Griffith, 2004).

The retrospective design requires the merger of data from several statewide information systems for DSS referred families. These data sources include the IFPS-specific information residing in the IFPS MIS, the CPS risk assessment information residing in the North Carolina Central Registry, and the Child Placement and Payment System. The study population in SFY 2003 includes all families receiving their first IFPS intervention between July 1, 1994 and December 31, 2001. The comparison population includes all other families in North Carolina *in counties offering IFPS services* with a child who experienced their first substantiated report after July 1, 1993 and before December 31, 2001. The comparison families had not received IFPS services. The end of the tracking period is limited to December 31, 2002 because this is latest date for which the necessary one-year placement data is available in the timeframe necessary to conduct this study. *Only families rated as “high” on the standardized CPS risk assessment are retained for the study.* The study sample includes 1126 high-risk families that received IFPS, and the comparison group includes 18,376 high-risk families in IFPS counties that did not receive IFPS services.

For families receiving IFPS services, the substantiated report closest in time, and before referral to IFPS, is selected as the report linked to the family IFPS intervention. For comparison families with more than one substantiated report in the study period, the substantiated report linked to the family is selected randomly in proportion to the substantiated report number that is linked to the IFPS intervention for IFPS families. The outcome measure of interest, “time to placement”, is computed from the date of referral to IFPS for IFPS families, and from the date the substantiated report was made for the comparison families.

Generally speaking, the retrospective study and the on-going retrospective evaluation conducted in previous years revealed that IFPS outperformed traditional child welfare services when the comparison groups included the high-risk families that IFPS is intended to impact. In fact, the more risk factors present in any comparison (e.g., high-risk families that had experienced previous out-of-home placements and also had two or more prior substantiated reports) the more effective was IFPS when compared to traditional services. In each case when risk factors were controlled, IFPS resulted in lower initial placement rates and delayed placement patterns following service completion. Conversely, when risk factors were not controlled during the analyses, IFPS did not always outperform traditional services. The placement rates and patterns evident in the survival curves used to analyze the data suggest that secondary interventions or additional services should be offered at 3 to 5 months post-IFPS in those cases that concluded without a placement being made. The results of the study strongly supported the continued use and expansion of IFPS with respect to high-risk families.

The data suggest that disproportionately more serious types of families are being referred for IFPS services. Specifically, IFPS families are more than twice as likely to have experienced one or more prior substantiated reports (41.7% to 19.0%, chi-square=340.878, df=1, $p<.001$), and IFPS families are almost three times more likely to have experienced one or more prior high risk substantiated reports (17.0% to 6.4%, chi-square=182.551, df=1, $p<.001$). Further, IFPS families are statistically significantly more likely to have experienced one or more prior spells under placement authority (8.0% to 2.0%, chi-square=164.060, df=1, $p<.001$). The fact that IFPS providers serve the highest risk cases in counties that offer the service makes it that much more compelling that positive treatment outcomes are observed for IFPS families. The analyses

that follow will demonstrate the positive treatment effects of IFPS as well as demonstrate that when risk factors are controlled for, the IFPS treatment effect becomes even more significant.

Event history analysis, or survival analysis, is employed to assess differences in placement patterns for families in this study. This analytic technique is desirable because it is able to account for the dynamic nature of time. Rather than calculating the difference in placement rates at the end of a one-year follow-up period, survival analysis computes the relative risk of placement over time. This technique allows for changes in the rate of placement to be observed over time. The following series of survival curves display the positive treatment effect of IFPS on both the prevention and the delaying of placements following cases of substantiated maltreatment.

Figures 1 through 6 display curves depicting the probability of placement (determined by performing $1 - \text{survival rate}$). Each figure displays the proportion of children being placed out-of home within one year from the date the family was referred to IFPS for families receiving IFPS, or within one year from the date of the substantiated report for families in the comparison group. The *higher* the curve goes during the measurement period, the *worse* the placement outcomes for the population represented in the curve. Thus, “up” is undesirable.

Figure 1 shows that the families receiving IFPS have significantly lower placement rates than non-IFPS families, and that these reduced placement rates hold through 365 days (Wilcoxon=12.543, df=1, $p<.001$). This figure displays the dramatic reduction in placement rates for families receiving IFPS for the first 6 months. Although the placement rates between the two groups becomes more similar approaching the one year mark, only 24.9% of IFPS families experience a placement by one year, compared to 27.3% of non-IFPS families. In the original retrospective study and the on-going retrospective evaluation in SFY 2001, the

placement rates for IFPS and non-IFPS families were the same at one year. In SFY 2002 there was a 1.6% difference in the placement rates for these two groups. This year that difference is even larger (2.4%). This figure demonstrates the increasing effectiveness of IFPS at reducing or delaying the out-of-home placement of an imminent risk child probably associated with policy changes directing priorities to some of the highest-risk families.

Figure 1. Risk of Placement After CPS Report/Referral to IFPS

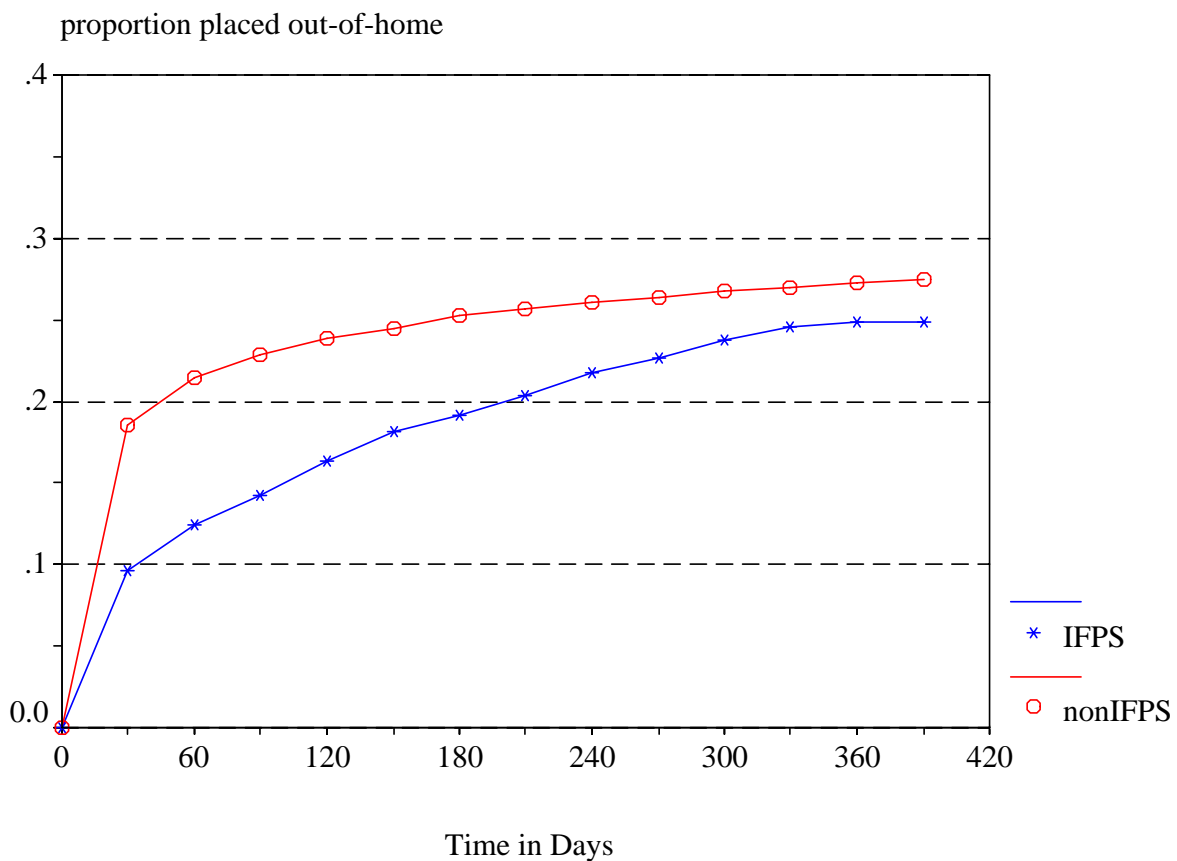


Figure 2 displays the survival curves for IFPS and non-IFPS families that have had one or more prior spells under placement authority. When prior placement authority is controlled in the analysis, IFPS statistically significantly reduces the rate at which children enter out-of-home

placements (Wilcoxon=16.253, df=1, $p<.001$). At 365 days, only 25.6% of IFPS families have experienced a placement compared to 46.1% of non-IFPS families.

Figure 2. Risk of Placement After CPS Report/Referral to IFPS
for Children with 1+ Prior PA Spells

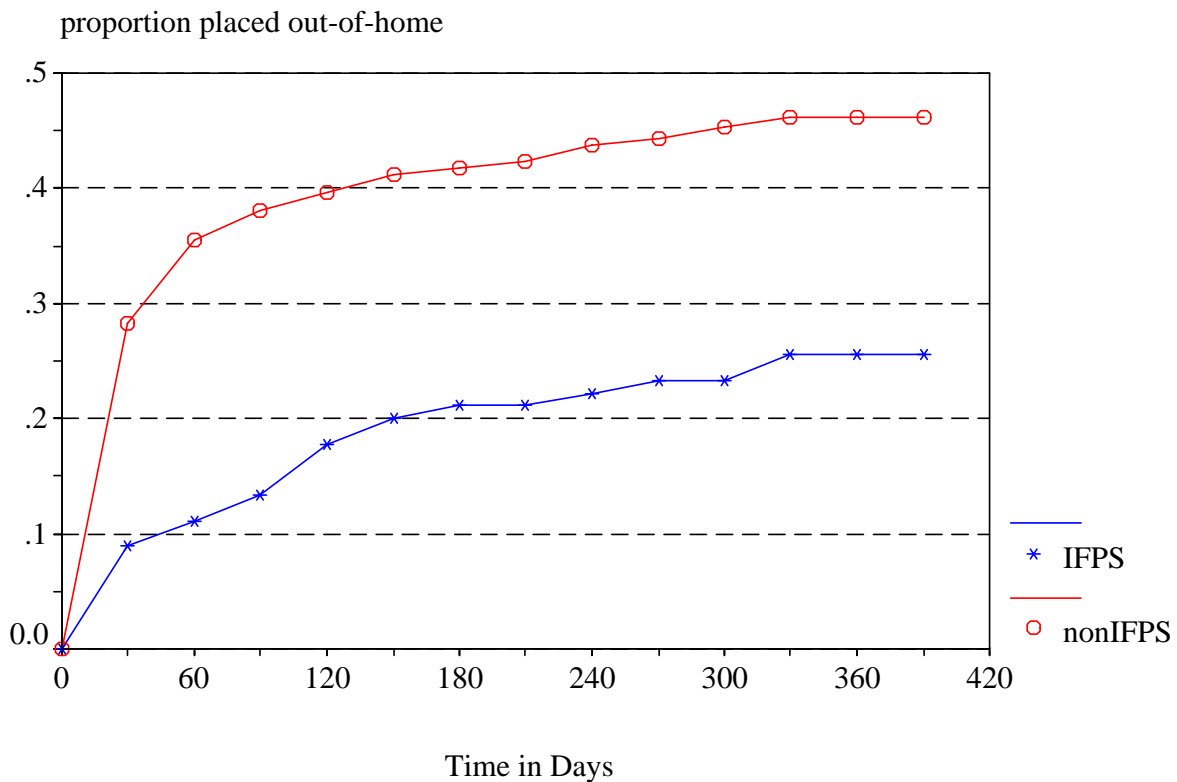


Figure 3 displays the survival curves for IFPS and non-IFPS families that have had one or more prior substantiated reports. When prior substantiated reports are controlled in the analysis, IFPS statistically significantly reduces the rate at which children enter out-of-home placements (Wilcoxon=31.446, df=1, $p<.001$). At 365 days, only 26% of IFPS families have experienced a placement compared to 36.2% of non-IFPS families. It can be seen from the curve that the

observed treatment effect of IFPS is greatest until about 240 days, at which time it essentially parallels traditional child welfare service programs but maintaining a 10% lower placement rate throughout the remainder of the 365 day measurement period.

Figure 3. Risk of Placement After CPS Report/Referral to IFPS
for Children with 1+ Prior Substantiations

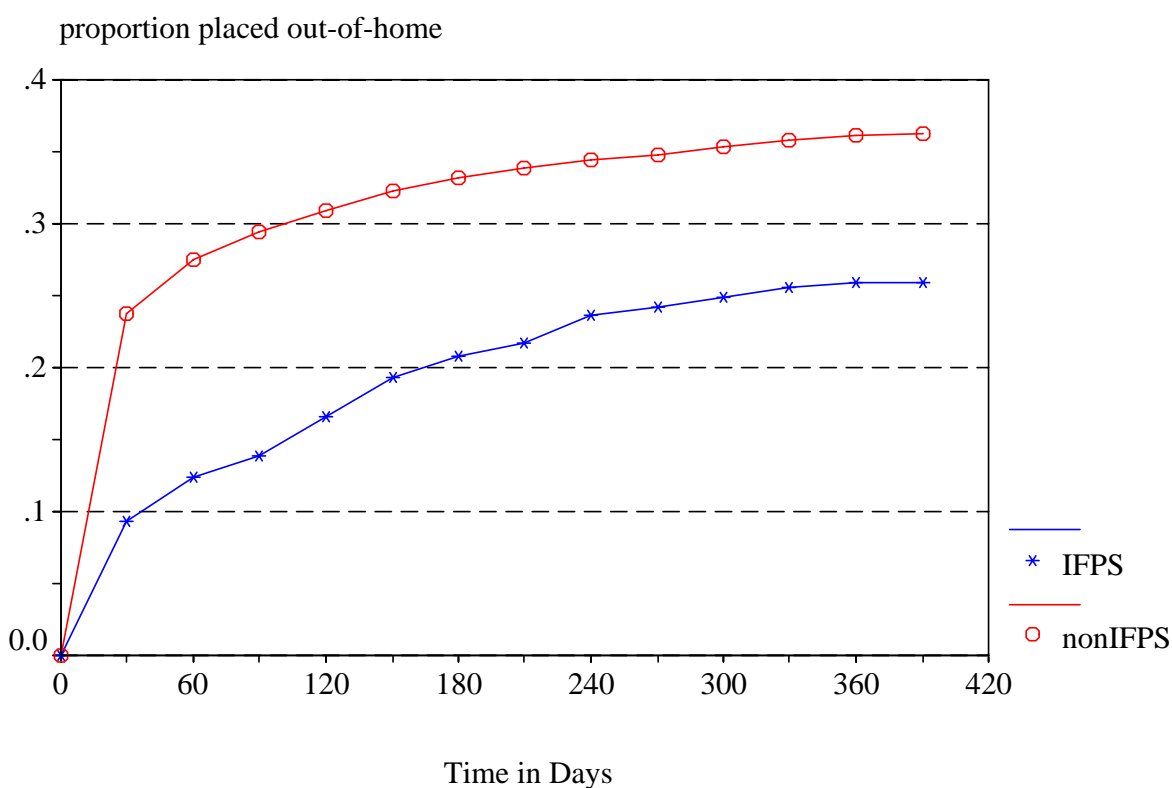
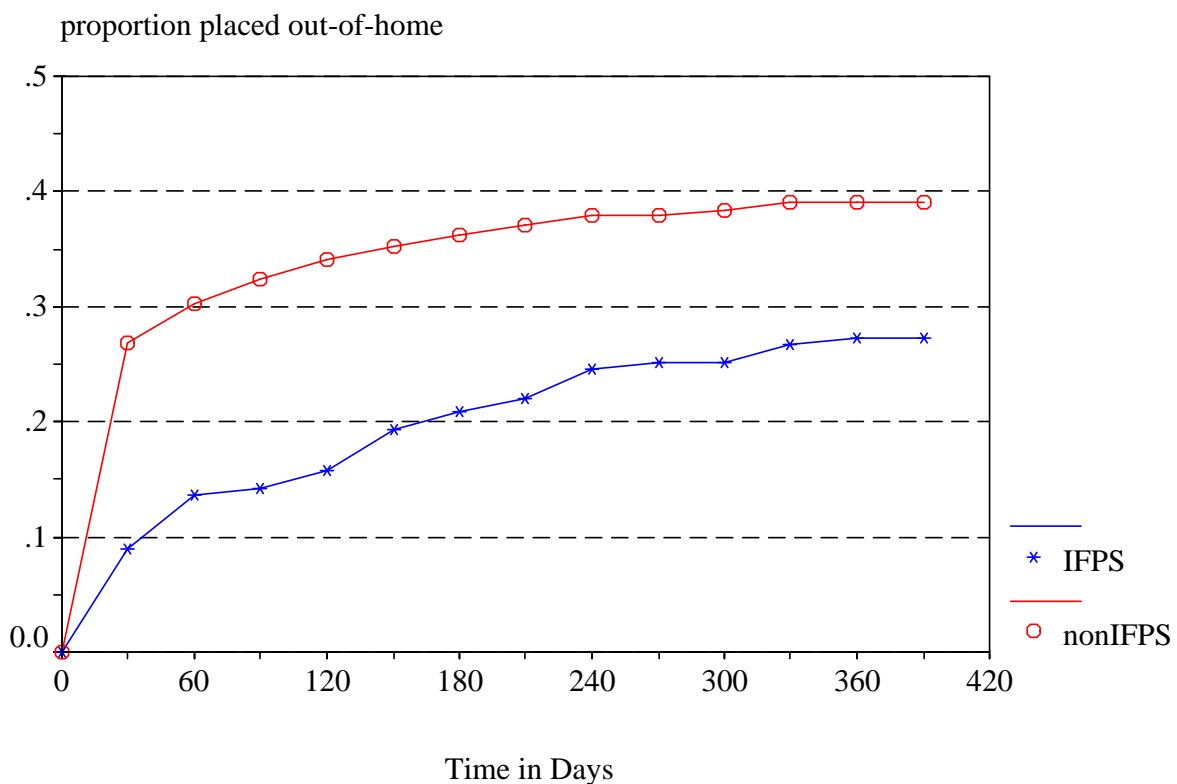


Figure 4 displays the survival curves for IFPS and non-IFPS families that have had one or more prior high-risk substantiated reports. When prior high-risk substantiated reports is controlled in the analysis, IFPS statistically significantly reduces the rate at which children enter out-of-home placements (Wilcoxon=17.957, df=1, $p<.001$). At 365 days, only 27.2% of IFPS

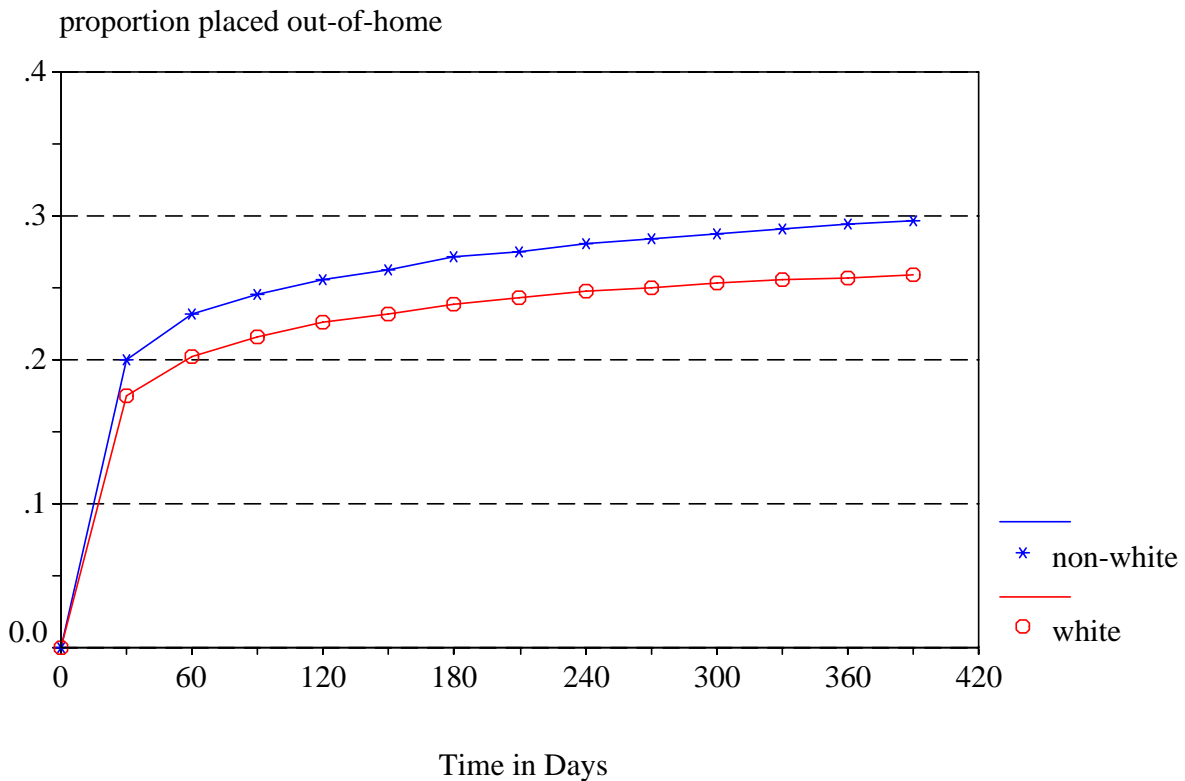
families have experienced a placement compared to 39% of non-IFPS families. This picture displays a very similar pattern to that in Figure 3 in that the observed treatment effect of IFPS is greatest until about 240 days. After this point, the curves are essentially parallel, with IFPS outperforming non-IFPS services by about 12%.

Figure 4. Risk of Placement After CPS Report/Referral to IFPS
for Children with 1+ Prior High Risk Substantiations



These curves demonstrate that when the risk factors are accounted for in both the treatment and comparison groups, IFPS statistically significantly outperforms traditional child welfare services in every case by reducing the number of placements and/or delaying placements at 365 days. Further, these treatment effects are even larger at 180 days.

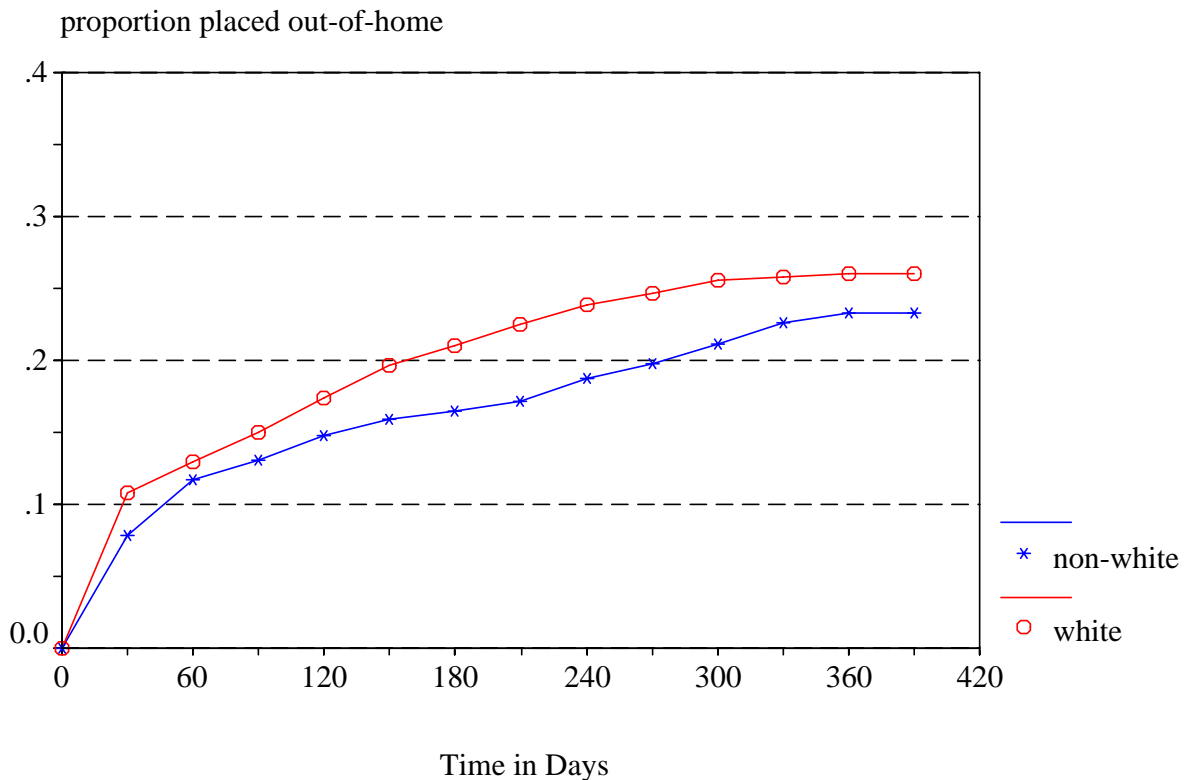
Figure 5. Risk of Placement After CPS Report/Referral to IFPS
for Children Receiving Traditional CW Services by Race



Figures 5 thru 7 present a special survival analysis aimed at examining the effectiveness of IFPS at mitigating racial differences in the placement patterns of high-risk children. Figure 5 shows that among families receiving traditional child welfare services, non-white children have a higher risk of placement than white children (29.5% to 25.8% at 365 days). This difference is statistically significant (Wilcoxon=28.297, df=1, $p<.001$). Figure 6, however, displays a very different racial picture for families receiving IFPS services. Non-white children who receive

IFPS services appear to be less likely to be placed than white children who receive IFPS services (23.3% to 26% at 365 days).

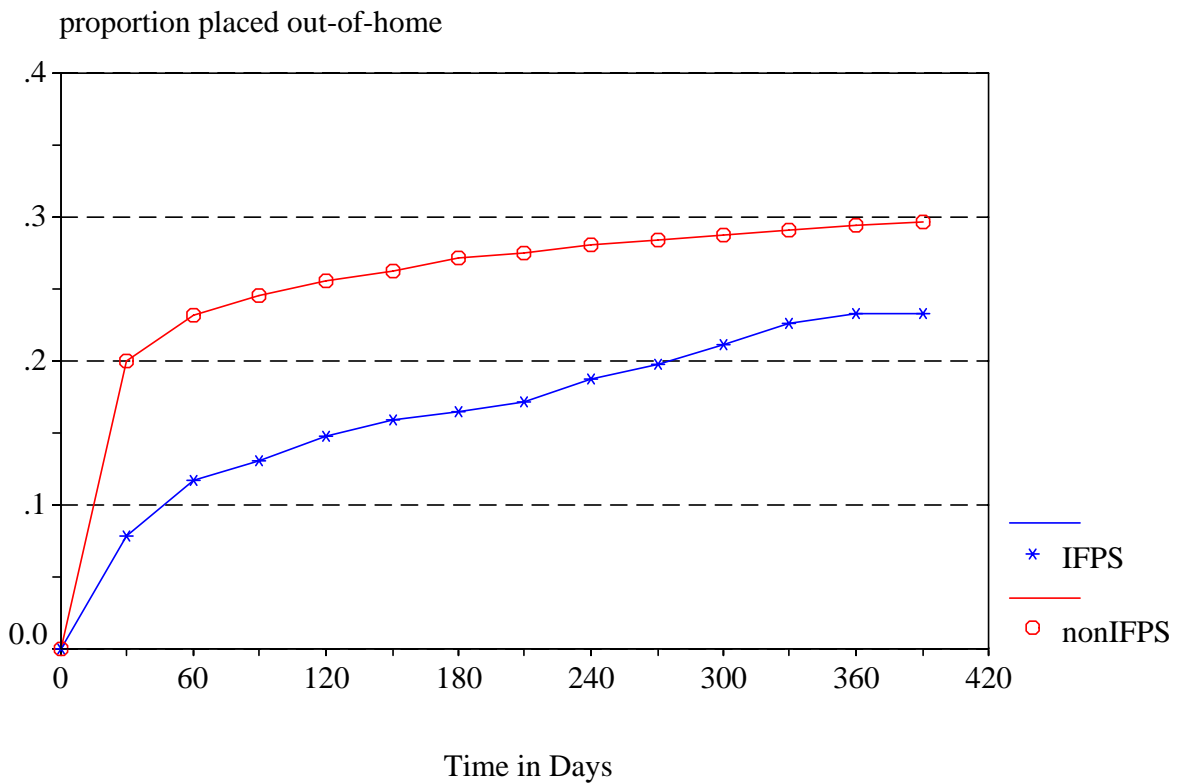
Figure 6. Risk of Placement After CPS Report/Referral to IFPS
for Children Receiving IFPS Services by Race



Although this difference was not statistically significant (Wilcoxon=1.501, df=1, p=.22), the results indicate that IFPS may be instrumental in mitigating the racial disparity that exists in the rest of the child welfare population that received traditional services. The difference between the placement rates of non-white children who receive and do not receive IFPS is statistically significant (Wilcoxon=16.530, df=1, p<.001). This difference can be seen in Figure 7, which illustrates that throughout the first year after service the placement rate for IFPS non-white

children is 6% to 12% lower than the non-white children who receive traditional child welfare services.

Figure 7. Risk of Placement After CPS Report/Referral to IFPS
for non-White Children



Summary of Major Findings

- ◆ The retrospective study bolsters the results of the traditional evaluation strategies employed in previous years by demonstrating the clear superiority of IFPS over traditional services when risk factors are controlled or accounted for in the analysis.
- ◆ Retrospective study survival curves indicate a predictable attrition phenomenon among IFPS families that occurs by 6 months after IFPS. Follow-up services being implemented during the next fiscal year will provide additional family contact and opportunity for additional services that will hopefully reduce this attrition.
- ◆ Preliminary inspection of placement rates suggests that IFPS may be useful in addressing racial disparities in service outcomes that exist in the child welfare population.